IN THE CLAIMS

1-9. (Canceled)

10. (New) An examination data processing apparatus for analyzing a blood specimen containing a plurality of lipoproteins and computationally determining a lipid phenotype, the apparatus comprising:

means for integrating a plurality of optical density waveforms to calculate an integrated value for each optical density waveform, the optical density waveforms being formed by conducting electrophoresis on the blood specimen to obtain an electrophoretogram for each of a plurality of different lipoprotein components and optically scanning the electrophoretograms to obtain the optical density waveforms;

means for normalizing each optical density waveform using a corresponding integrated value to produce a plurality of normalized optical density waveforms;

means for storing the plurality of normalized optical density waveforms;

means for calculating totals of the different lipoprotein components for at least some of the plurality of lipoproteins using the normalized optical density waveforms;

means for comparing the totals to corresponding reference values; and

means for determining a lipid phenotype based on the comparison of the totals to the corresponding reference values.

11. (New) The apparatus of Claim 10, wherein the lipoprotein components are triglyceride and cholesterol.

12. (New) The apparatus of Claim 10, wherein the plurality of lipoproteins include high density lipoprotein, low density lipoprotein, very low density lipoprotein, and chylomicron.

13. (New) A recording medium storing a program to carry out a function of the examination data processing apparatus according to Claim 10.

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14. (New) A recording medium storing a program to carry out a function of the examination data processing apparatus according to Claim 11.

15. (New) A device for analyzing a blood specimen containing a plurality of lipoproteins and computationally determining a lipid phenotype, the apparatus comprising:

a storage medium for storing a plurality of optical density waveforms for different lipoprotein components of the blood specimen, the optical density waveforms being formed by optically scanning a plurality of corresponding electrophoretograms, the electrophoretograms being formed by conducting electrophoresis on the blood specimen; and

a computer connected to the storage medium, the computer being configured to perform the steps of

integrating each of the optical density waveforms to produce an integrated value for each optical density waveform;

normalizing each optical density waveform using a corresponding integrated value to produce a plurality of normalized optical density waveforms;

calculating totals of the different lipoprotein components for at least some of the plurality of lipoproteins using the normalized optical density waveforms;

comparing the totals to corresponding reference values; and

determining a lipid phenotype based on the comparison of the totals to the corresponding reference values.

16. (New) The device of Claim 15, wherein the lipoprotein components are triglyceride and cholesterol.

17. (New) The device of Claim 15, wherein the plurality of lipoproteins include high density lipoprotein, low density lipoprotein, very low density lipoprotein, and chylomicron.

18. (New) A method for analyzing a blood specimen containing a plurality of lipoproteins and computationally determining a lipid phenotype comprising the steps of:

producing an electrophoretogram for each of a plurality of different lipoprotein components of the blood specimen;

optically scanning each electrophoretogram to produce a plurality of optical density waveforms;

integrating each of the optical density waveforms to produce a corresponding integrated value for each optical density waveform;

normalizing each optical density waveform using the corresponding integrated value to produce a plurality of normalized optical density waveforms;

calculating totals of the different lipoprotein components for at least some of the plurality of lipoproteins using the normalized optical density waveforms;

comparing the totals to corresponding reference values; and

determining a lipid phenotype based on the comparison of the totals to the corresponding reference values.

19. (New) The method of Claim 18, wherein the lipoprotein components are triglyceride and cholesterol.

20. (New) The method of Claim 18, wherein the plurality of lipoproteins include high density lipoprotein, low density lipoprotein, very low density lipoprotein, and chylomicron.

21. (New) The method of Claim 18, wherein the totals represent total normalized concentrations.

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